

Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraph number [0016] with the following rewritten paragraph:

(8) The vacuum pump as recited in any one of the foregoing items (3) to (7), wherein said shaft seal member ~~has a seal gas passing port opened in a radial direction and the seal gas introduced between the outer circumferential surface of the bearing member and the inner circumferential surface of the rotor cylinder of the screw rotor through the shaft seal member from the bearing member~~ comprises a plurality of substantially hollow-cylindrical shaft seal member pieces that are juxtaposed in said concave portion while partly overlapping each other in the cylinder axis direction of said bearing member and urging means is disposed between said shaft seal member pieces for urging said shaft seal member pieces in said cylinder axis direction in said concave portion.

Please replace paragraph number [0028] with the following rewritten paragraph:

A screw pump body [[A]] comprises a pair of screw rotors 13M and 13FM.

Please replace paragraph number [0035] with the following rewritten paragraph:

Now, referring also to Fig. 2 in addition to Fig. 1, description will be given in detail of a configuration of the shaft seal structure 17 with a centering mechanism. The shaft seal structure 17 forms a static pressure seal and an inert gas such as, for example, a nitrogen gas is introduced into a shaft seal space portion 20 from a seal gas introduction port 6 through the inside of the bearing member[[6]] 16M and the outer circumferential surface of the bearing member [[6]] 16FM under a predetermined pressure. The concave portion 20 is circumferentially formed on the outer circumferential surface of each of the bearing members 16M and 16FM. In the concave portion 20 is disposed a substantially hollow-cylindrical shaft seal member 8 in the form of a porous member made of carbon or the like. The shaft seal member 8 includes two substantially hollow-cylindrical shaft seal member pieces 8a and 8b. The two shaft seal member pieces 8a and 8b are juxtaposed in the cylinder axis direction of the bearing member 16M, 16FM while partly overlapping each other. In order to dispose

the two shaft seal member pieces 8a and 8b with no clearances in the concave portion 20, a plate spring 18 is provided between the two shaft seal member pieces 8a and 8b for urging the shaft seal member pieces 8a and 8b in extending directions of the shaft 2.

Please replace paragraph number [0043] with the following rewritten paragraph:

Further, although not illustrated in Fig. 4, a gap between the outer circumferential surface of the bearing member [[6]] including the outer circumferential surface of the shaft seal member 8 and the r inner circumferential surface 7 of the rotor cylinder is formed club-shaped toward the discharge port side, i.e. so-called tapered. That is, the outer circumferential surface of the shaft seal member 8, the inner circumferential surface 7, or both the outer circumferential surface of the shaft seal member 8 and the inner circumferential surface 7 are formed in a tapered shape.